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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT : Yasser Alsafadi  
SERIAL NO. : 09/454,348 EXAMINER : Almari R. Yuan  
FILED : December 3, 1999 ART UNIT : 2176  
FOR : METHODS FOR INITIATING ACTIVITY IN INTELLIGENT DEVICES  
CONNECTED TO AN IN HOME DIGITAL NETWORK USING  
EXTENSIBLE MARKUP LANGUAGE (XML) FOR INFORMATION  
EXCHANGE AND SYSTEM THEREFOR

APPEAL BRIEF TRANSMITTAL LETTER

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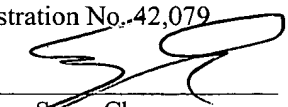
Dear Sir:

Appellants respectfully submit three copies of a Brief For Appellants that includes an Appendix with the pending claims. The Appeal Brief is now due on February 17, 2004.

Appellants enclose a check in the amount of \$330.00 covering the requisite Government Fee.

Should the Examiner deem that there are any issues which may be best resolved by telephone communication, kindly telephone Applicants undersigned representative at the number listed below.

Respectfully submitted,  
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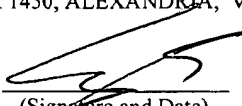
Date: February 17, 2004

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(Name of Registered Rep.)

  
(Signature and Date)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

SC  
#72  
2/26/04

**In re the Application**

**Inventor : Yasser Alsafadi**

**Application No. : 09/454,348**

**Filed : December 3, 1999**

**For : METHODS FOR INITIATING ACTIVITY IN  
INTELLIGENT DEVICES CONNECTED TO AN IN HOME  
DIGITAL NETWORK USING EXTENSIBLE MARKUP  
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AND SYSTEM THEREFOR**

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**APPEAL BRIEF**

**On Appeal from Group Art Unit 2176**

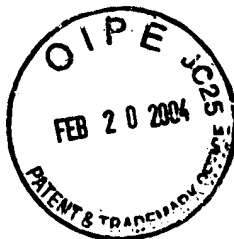
**Date: February 17, 2004**

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Serial No.: 09/869,385

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**I. REAL PARTY IN INTEREST**

The real party in interest is the assignee of the present application, U.S. Philips Corporation, and not the party named in the above caption.

**II. RELATED APPEALS AND INTERFERENCES**

With regard to identifying by number and filing date all other appeals or interferences known to Appellant which will directly effect or be directly affected by or

have a bearing on the Board's decision in this appeal, Appellant is not aware of any such appeals or interferences.

### **III. STATUS OF CLAIMS**

Claims 1-24 have been presented for examination. All of these claims are pending, stand finally rejected, and form the subject matter of the present appeal.

### **IV. STATUS OF AMENDMENTS**

The Amendment after the Final Office Action filed November 5, 2003 has been entered.

### **V. SUMMARY OF THE INVENTION**

The present invention relates to communications among intelligent information and entertainment digital devices (IDDs) of an in-home digital network (IHDN) (page 1, lines 8-10). Examples of IDDs are video cassette recorders (VCRs), televisions (TVs) and personal computers (PCs) (page 1, lines 16-24). In accordance with the invention, the IDDs generate and/or receive documents, each one a structured document, and, in particular, a document written in Extensible Markup Language (XML) (page 7, lines 25-27).

Conventionally, an XML document conveys content, and may have an associated Document Type Definition (DTD) which provides formatting rules by which to interpret its associated XML document. On the other hand, some XML documents have no DTD. The DTD, if any, may physically accompany a corresponding XML document or may be referenced at an external location (page 8, line 18 – page 9, line 13).

An IDD receiving a DTD, in accordance with the present invention, verifies that the DTD satisfies a predetermined criteria. For system security and integrity, for example, a check is made as to whether the received DTD appears on an internal list of trusted DTDs, i.e., DTDs that have been processed before or which have been otherwise authorized (page 10, lines 21-29; page 12, lines 19-29).

If the criteria is satisfied, the receiving IDD operates on the data in the corresponding XML document based on the content of that data (page 13, lines 1-15). For example, the data may be split into two categories: the data which, as indicated by a user profile, is relevant to what the user wants displayed on a TV screen; and data which is deemed not to be relevant. The non-relevant data is discarded, and the relevant data is displayed (page 15, lines 25-29; page 16, lines 24-26).

The XML document whose DTD is to be examined may be transferred from one IDD to the DTD-examining IDD without any respective transfer of the DTD (page 12, line 24: "references"). Moreover, the XML document may have been transferred responsive to a command from the DTD-examining IDD (page 4, line 22: "responsive").

If, upon examination, the DTD satisfies the predetermined criteria, the data of the respective XML document is parsed as described above (page 13, lines 1-15). Selected portions of the parsed data may be operated on. For example, the parsed data may be translated to a different format, such as by virtual reality modeling language (VRML) interpretation (page 13, lines 5-6). Additionally or alternatively, the parsed data may be reformatted for on-screen display (page 13, lines 12-13).

Finally, each IDD may comprise corresponding processors each associated with respective DTDs, such that a received XML document is processed only by those

processors matching the DTD of the XML document. The number of processors may vary by IDD (page 5, lines 4-18).

## **VI. ISSUE**

Referring to International Publication Number WO 99/57837 to Humpelman et al. (“Humpelman”) and U.S. Patent No. 6,519,597 to Cheng et al. (“Cheng”), respectively, whether Humpelman in view of Cheng renders unpatentable under 35 U.S.C. 103(a) the invention as recited in the claims 1-24.

## **VII. GROUPING OF CLAIMS**

Claims 1-24 do not stand or fall together.

## **VIII. ARGUMENT**

Claim 1 recites:

A method of operating an intelligent digital device (IDD) receiving an eXtensible Markup Language (XML) document containing data and respective Document Type Definition (DTD) describing the data content, comprising:  
verifying that a received DTD satisfies a predetermined criteria; and,  
if said criteria is satisfied, operating on said data based on said content.

Item 8 of the Final Office Action suggests that Humpelman, at page 30, lines 6-14, discloses “verifying that a received DTD.” However, the cited passage merely discloses that a DTD may be used for validity checks, not that a DTD is received. It is noted in this regard, that, since not all XML documents have an associated DTD, much

less an associated DTD in physical proximity, receipt of an XML document does not imply receipt of a DTD.

Item 8 acknowledges that Humpleman fails to disclose or suggest “verifying that a received DTD satisfies a predetermined criteria.”

Item 8 cites as disclosing “operating on said data based on said content” Humpelman page 17, lines 11-21; page 19, lines 17-29; and page 29, lines 26-32. None of the passages, however, disclose or suggest “operating on” data, much less “operating on said data based on said content.” The Office Action provides not a hint as to where Humpelman discloses “operating on said data.” The claim states “operating on” said data, i.e., the data in the respective XML document.

As to the first clause, “if said criteria is satisfied,” item 8 again concedes that Humpelman makes no such suggestion or disclosure.

Item 8 cites various passages in the Cheng reference to apparently show that implementation of the Humpelman database, in view of the Cheng database, would produce an embodiment that meets the limitations of claim 1. It is unclear if these various passages are being offered each as independent proof or as combined proof.

The first passage, lines 1-7 of page 2, seemingly is cited to suggest the worthiness of the Cheng approach.

The second passage, lines 44-61 of column 9, states that, in database operation, an XML parser parses an XML document that is to be stored in the database. In the course of parsing, it is determined whether the XML document has a DTD. If so, a search is made in the XML\_DTD\_REF reference table to see if this DTD is already an entry. If it is not already an entry, this DTD is added as an entry. If, on the other hand, the DTD is

already an entry, a DTD identifier is retrieved from the table and assigned to the XML object as its attribute.

Although lines 44-61 of column 9 disclose “verifying that a received DTD satisfies a predetermined criteria”, i.e., whether it already exists in the reference table, the passage fails to disclose or suggest “if said criteria is satisfied, operating on said data based on said content,” i.e., operating on the data of the XML document based on the content of the XML document.

The third cited passage is lines 37-58 of column 13, but this passage says nothing about “operating on said data.” This passage says that the database may have one structure (general indexing) or another structure (DTD bounded indexing). In the latter case, the DTD is parsed and stored in the reference table. There is no hint of “operating on said data,” i.e., the data in the respective XML document. In particular, Humpelman/Cheng fails to feature “if said criteria is satisfied, operating on said data based on said content.”

The fourth cited passage is lines 29-45 of column 17 describes a tag counting system that provides useful positioning information for the database (col. 15, line 58) and helps the user conduct proximity searches (col. 16, lines 22-24). The passage also mentions how the tag counting operates for XML documents that have no DTD. Once again, however, Humpelman/Cheng fails to feature “if said criteria is satisfied, operating on said data based on said content.”

For at least the above reasons, the applied references fail to disclose or suggest the invention as recited in claim 1.



Claim 6 recites essentially the same language emphasized above as missing from Humpelman/Cheng. As to that language, item 8 of the Office Action cites the same passages from Cheng, which have been shown to be inadequate. Claim 6 is therefore likewise deemed to be patentable over the applied references for at least the same reasons set forth above.

Claim 15 recites:

A method of operating a system including a digital network interconnected intelligent digital devices (IDDs) generating and receiving eXtensible Markup Language (XML) documents containing data and respective Document Type Definitions (DTDs) describing the data content, comprising: (a) generating an XML document containing related data and a reference to a respective DTD at a first IDD responsive to a command from a second IDD; (b) transmitting the XML document from the first to the second IDD; (c) when the respective DTD satisfies a predetermined criteria, parsing the data in the XML document in accordance with the format described in the respective DTD to thereby generate parsed data from the related data; and (d) operating on the parsed data.

Item 8 acknowledges that Humpelman fails to disclose or suggest “when the respective DTD satisfies a predetermined criteria, parsing the data in the XML document in accordance with the format described in the respective DTD to thereby generate parsed data from the related data.”

Humpelman, like Cheng, discloses an XML parser, but the references, alone or in combination, fail to disclose or suggest parsing “when the respective DTD satisfies a predetermined criteria.” Item 8 cites the same Cheng passages, which have been shown to not disclose or suggest “when the respective DTD satisfies a predetermined criteria, parsing the data in the XML document in accordance with the format described in the respective DTD to thereby generate parsed data from the related data.” For at least this reason, Humpelman/Cheng fails to render obvious the invention as recited in claim 15.

Claim 18 recites:

a plurality of intelligent digital devices (IDDs) interconnected to one another, each of the IDD being capable of one of generating and receiving an eXtensible Markup Language (XML) document containing data and referencing a document type definition (DTD); wherein:  
a first IDD generates the XML document responsive to a command received over an in-house digital network (IHDN);  
a second IDD stores N XML processors associated with N named DTDs;  
a third IDD stores M XML processors associated with M named DTDs;  
the second IDD processes the XML document using one of the N XML processors when the respective DTD corresponds to one of the N named DTDs;  
the third IDD processes the XML document using one of the M XML processors when the respective DTD corresponds to one of the M named DTDs; and  
N and M are both positive integers.

Again, item 8 presents us with multiple passages in Humpelman, and the same sequence of passages in Cheng.

The first Humpelman passage, lines 1-8 of page 6, merely states that Humpelman relates to a home network.

The second Humpelman passage, lines 26-32 of page 29, says that a first device in the home network can send an XML message to control a second device in the network.

The third Humpelman passage, lines 6-24 of page 30, says that an interface portion of each device can perform validity checks on the XML. Commands can be parsed and validated.

The fourth Humpelman passage, lines 31-32 of page 31, says that a middleware layer for the network can be located alternatively in various places, such as a third device.

Item 8 acknowledges that Humpelman fails to disclose or suggest “stored XML processors associated with named DTDs” and “processes the XML document using one

of the XML processors when the respective DTD corresponds to one of the named DTDs.” In other words, item 8 fails to disclose or suggest the essence of claim 18.

What is cited for Cheng? Yes, the same Cheng passages, none of which have seem to have anything remotely relevant to what is missing in Humpelman.

For at least this reason, Humpelman/Cheng fails to render obvious the invention as recited in claim 18.


As to the other recited claims, each depends from one of the base claims and is deemed to be patentable at least due that dependency, although each warrants further consideration based on its additional merits.

#### IX. CONCLUSION

In view of the above analysis, it is respectfully submitted that the referenced teachings, whether taken individually or in combination, fail to anticipate or render obvious the subject matter of any of the present claims. Therefore, reversal of all outstanding grounds of rejection is respectfully solicited.

Respectfully submitted,

Daniel Piotrowski  
Registration No. 42,079

  
By: Steve Cha  
Attorney for Applicant  
Registration No. 44,069

Date: February 17, 2004

**X. APPENDIX: THE CLAIMS ON APPEAL**

1. A method of operating an intelligent digital device (IDD) receiving an eXtensible Markup Language (XML) document containing data and respective Document Type Definition (DTD) describing the data content, comprising:  
verifying that a received DTD satisfies a predetermined criteria; and,  
if said criteria is satisfied, operating on said data based on said content.
2. The method as recited in claim 1, wherein the IDD maintains a list of trusted DTDs and wherein the predetermined criteria is equality between the name of the received DTD and the name of a trusted DTD.
3. The method as recited in claim 1, wherein the predetermined criteria comprises the inclusion of the name of a program residing on the IDD.
4. The method as recited in claim 3, wherein the program comprises an XML-enabled program.
5. The method as recited in claim 3, wherein the program comprises an XML parser.
6. A method of operating a system including a digital network interconnected intelligent digital devices (IDDs) generating and receiving eXtensible Markup Language (XML) documents containing data and respective Document Type Definitions (DTDs) describing the data content, comprising:  
transmitting a generated XML document from a first IDD to a second IDD; and  
when the respective DTD for the generated XML document satisfies a predetermined criteria, operating on said data contained in the XML document at the second IDD based on said content.

7. The method as recited in claim 6, wherein the second IDD maintains a list of trusted DTDs and wherein the predetermined criteria is equality between the name of the respective DTD and the name of a trusted DTD.

8. The method as recited in claim 6, wherein the predetermined criteria comprises the inclusion of the name of a program residing on the second IDD.

9. The method as recited in claim 8, wherein the program comprises an XML-enabled program.

10. The method as recited in claim 8, wherein the program comprises an XML processor.

11. The method as recited in claim 6, wherein:  
the transmitting step comprises transmitting the generated XML document from the first IDD to the second IDD and a third IDD;  
the operating step comprises operating on the data contained in the XML document at the second IDD when the respective DTD for the generated XML document satisfies a first predetermined criteria, and  
the method further comprises the step of operating on the data contained in the XML document at the third IDD when the respective DTD for the generated XML document satisfies a second predetermined criteria.

12. The method as recited in claim 11, wherein:  
the second IDD maintains a first list of trusted DTDs;  
the third IDD maintains a second list of trusted DTDs;  
the first predetermined criteria is equality between the name of the respective DTD and the name of a trusted DTD on the first list; and  
the second predetermined criteria is equality between the name of the respective DTD and the name of a trusted DTD on the second list.

13. The method as recited in claim 11, wherein the XML document and the respective DTD are transmitted to the second and third IDD.

14. The method as recited in claim 11, wherein the respective DTD is stored on at least one of the second and third IDDs.

15. A method of operating a system including a digital network interconnected intelligent digital devices (IDDs) generating and receiving eXtensible Markup Language (XML) documents containing data and respective Document Type Definitions (DTDs) describing the data content, comprising:

- (a) generating an XML document containing related data and a reference to a respective DTD at a first IDD responsive to a command from a second IDD;
- (b) transmitting the XML document from the first to the second IDD;
- (c) when the respective DTD satisfies a predetermined criteria, parsing the data in the XML document in accordance with the format described in the respective DTD to thereby generate parsed data from the related data; and
- (d) operating on the parsed data.

16. The method as recited in claim 15, wherein:

the second IDD stores a list of trusted DTDs associated with respective XML processors;

the predetermined criteria is coincidence between the respective DTD and a trusted DTD on the list; and

the parsing and the operating steps are performed using the one of the XML processors corresponding to the respective DTD.

17. The method as recited in claim 16, wherein:

the second IDD stores a plurality of DTDs and associated XML processors;

the XML document references the respective DTD; and

the parsing and the operating steps are performed using the one of the XML processors corresponding to the respective DTD.

18. A system comprising:  
a plurality of intelligent digital devices (IDDs) interconnected to one another, each of the IDD being capable of one of generating and receiving an eXtensible Markup Language (XML) document containing data and referencing a document type definition (DTD); wherein:  
a first IDD generates the XML document responsive to a command received over an in-house digital network (IHDN);  
a second IDD stores N XML processors associated with N named DTDs;  
a third IDD stores M XML processors associated with M named DTDs;  
the second IDD processes the XML document using one of the N XML processors when the respective DTD corresponds to one of the N named DTDs;  
the third IDD processes the XML document using one of the M XML processors when the respective DTD corresponds to one of the M named DTDs; and  
N and M are both positive integers.

19. The system as recited in claim 18, wherein at least one of the N named DTDs and at least one of the M named DTDs are identical to the respective DTD, and wherein the one of the N XML processors corresponding to the respective DTD is different than the one of the M XML processors corresponding to the respective DTD.

20. The system as recited in claim 18, wherein the second IDD stores the N named DTDs, and wherein the third IDD stores the M named DTDs.

21. The system as recited in claim 18, wherein the second and third IDDs store lists of trusted DTDs including the associated N and M named DTDs, and wherein the first IDD generates the XML document and the respective DTD responsive to the command received over the IHDN.

22. The system as recited in claim 18, wherein said IDDs are interconnected to one another by an in home digital network (IHDN).

23. The system as recited in claim 18, wherein said IDD's are interconnected to one another via the internet.

24. The method of claim 1, wherein said operating comprises rendering a three-dimensional image based on an XML document that references said received DTD.